

COMMONWEALTH OF VIRGINIA  
Department of Environmental Quality  
Tidewater Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS  
Significant Permit Modification

International Paper Shorewood Packaging Corporation of Virginia  
815 Chapman Way  
Newport News, Virginia  
Permit No. TRO-60913  
Effective Date: November 5, 2003  
Expiration Date: July 29, 2007

As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, International Paper has applied for a significant permit modification to the Federal Operating Permit (Article 1) for its Shorewood Packaging Corporation of Virginia facility in Newport News, Virginia. The Department has reviewed the application and has prepared a modified Federal Operating Permit.

Engineer/Permit Contact:\_\_\_\_\_

Date:\_\_\_\_\_

Air Permit Manager:\_\_\_\_\_

Date:\_\_\_\_\_

Deputy Regional Director:\_\_\_\_\_

Date:\_\_\_\_\_

Attachment A: NSR permit of November 8, 2002, with amended pages of April 21, 2003

## **Facility Information**

Permittee  
International Paper  
6420 Polar Avenue 5-019  
Memphis, TN 38197

Facility  
Shorewood Packaging Corporation of Virginia  
815 Chapman Way  
Newport News, VA, 23608

Responsible Official  
Mr. John Cotè  
General Manager, Shorewood Packaging in Newport News

Contact Person  
Orville Calhoun  
Regional Environmental Health and Safety Manager  
(757) 989-1613

AFS Identification Number: 51-700-00066

Facility Description: SIC Code 2752 & 2754. The facility is a commercial printing operation using three centers of packaging rotogravure and lithographic presses to manufacture folding cartons.

Production Center: the three packaging rotogravure presses and two stand alone coaters, each using a total enclosure that is connected to the Production Center catalytic incinerator for VOC/HAP control.

Technical Center: the one packaging rotogravure press, which includes a coating station, that uses a total enclosure connected to the Technical Center catalytic incinerator for VOC/HAP control.

Lithographic Center: the three non-heatset sheetfed offset lithographic presses that use conventional inks, UV inks, and water based coatings.

## REQUESTED MODIFICATION

On March 17, 2003, Shorewood Packaging Corporation of Virginia requested a significant modification to the Federal Operating permit issued on July 29, 2002. The request was to modify Sections II, III, IV, and V of the Federal Operating permit to align it with the new requirements of the new source review permit issued on November 8, 2002.

## REASON FOR MODIFICATION

Shorewood Packaging Corporation of Virginia received a permit under 9 VAC 8-80-1100 to install a new JOSH rotogravure to replace the previously permitted Bobst Champion rotogravure press (RGP-1), install a new KBA 130 lithographic press to replace the previously permitted Planeta lithographic press (LP-1), and increase some thruputs for the lithographic presses. Sections II, III, IV, and V of the Federal Operating permit address the NSR permit requirements for the rotogravure and lithographic presses. As such, the Federal Operating permit needs to be modified so that it allows Shorewood Packaging to operate the presses as permitted under the NSR permit issued on November 8, 2002, with pages 2-3, equipment list, amended on April 21, 2003.

Sections VI, VII, and VIII of the Federal Operating permit that list the MACT requirements for RGP 1-4 did not change. For, whichever press is RGP-1, the MACT requirements remain the same in the NSR permit and the Federal Operating permit (The NSR permit date in the citation section of each condition was updated with the new NSR permit date.).

Section XI, General Requirements. Any changes made to the DEQ boilerplate since the original Federal Operating permit was issued on July 29, 2002, were incorporated into this permit.

## APPLICABILITY OF 9 VAC 5-80-230

Significant permit modification procedures are used for those permit modifications that:  
Do require or change a case-by-case determination of an emission limitation, new emission limits for RGP 1-3 and LP 1-3 in the 11/08/2002 NSR permit need to be placed in Federal Operating permit.

## CHANGES TO FEDERAL OPERATING PERMIT:

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Production Center</b>							
RGP-1	1a & 1b	Packaging rotogravure press, JOSH.	Six Rotogravure stations and Six Lithographic stations, web width of 28 inches, and rated at 539 ft/min.	Catalytic incinerator, Grace TEC Systems, Model Mangnum Quantum 41000. 1995	CI-1	VOC/HAPS	November 8, 2002, as amended 04/21/03
RGP-2	1a & 1b	Packaging rotogravure press, Bobst Champlain, Model M873. 1989	Eight stations, web width of 44 inches, and rated at 550 ft/min.	Catalytic incinerator, Grace TEC Systems, Model Mangnum Quantum 41000. 1995	CI-1	VOC/HAPS	November 8, 2002, as amended 04/21/03
RGP-3	1a & 1b	Packaging rotogravure press, Bobst Champlain, Model M873 with electron beam curing option. 1982	Nine stations, web width of 44 inches, and rated at 600 ft/min, with electron beam drying option.	Catalytic incinerator, Grace TEC Systems, Model Mangnum Quantum 41000. 1995	CI-1	VOC/HAPS	November 8, 2002, as amended 04/21/03
C-1	1a & 1b	Coater, Billhofer, Model Galamat EHN 142. 1994	Sheet size of 40" X 55", 3200 sheets/hr or 150 ft/min	Catalytic incinerator, Grace TEC Systems, Model Mangnum Quantum 41000. 1995	CI-1	VOC/HAPS	November 8, 2002, as amended 04/21/03
C-2	1a & 1b	Coater, Billhofer, Model Palamat CPJN-127. 1996	Sheet size of 50" X 50", 7000 sheets/hr or 330 ft/min	Catalytic incinerator, Grace TEC Systems, Model Mangnum Quantum 41000. 1995	CI-1	VOC/HAPS	November 8, 2002, as amended 04/21/03
<b>Technical Center</b>							
RGP-4	2	Packaging rotogravure press, Chambon, Model 176-597. 1994	Eight stations, web width of 13.5 inches, and rated at 550 ft/min.	Catalytic incinerator, M & W Industries. 1994	CI-2	VOC/HAPS	November 8, 2002, as amended 04/21/03
<b>Lithographic Center</b>							
LP-1	N/A	Lithographic press, KBA 130 Planeta. 2002	Non-heatset sheetfed offset lithographic press consisting of eight print units and two coating units, a sheet width of 51 inches and rated at 15,000 sheets/hr.	N/A			November 8, 2002, as amended 04/21/03
LP-2	N/A	Lithographic press, KBA Planeta Rapida, Model RA 130A-7 + LALW. 1997	Non-heatset sheetfed offset lithographic press consisting of seven print units and one coating unit, a sheet width of 51 inches and rated at 15,000 sheets/hr.	N/A			November 8, 2002, as amended 04/21/03
LP-3	N/A	Lithographic press, KBA Planeta Rapida, Model RA 130-7 + L-ALV. 1998	Non-heatset sheetfed offset lithographic press consisting of seven print units and one coating unit, a sheet width of 51 inches and rated at 15,000 sheets/hr. Can use UV inks.	N/A			November 8, 2002, as amended 04/21/03

(9 VAC 5-80-110, 9 VAC 5-80-10 A, and Condition 2 of NSR permit dated 11/08/200

### **III. Production Center/Technical Center – (RGP 1-4 and C 1 & 2), NSR permit of 11/08/2002**

#### **A. Limitations**

1. Volatile organic compound (VOC) emissions from three rotogravure presses (RGP-1 thru 3) and the two coating machines (C-1 & 2) in the production center shall be controlled by a total enclosure capture system and a catalytic incinerator having at least 95% destruction efficiency. The printing presses, coating machines and catalytic incinerator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 4 of NSR permit dated 11/08/2002)
2. Emission Controls - When there are no VOC emissions from using the UV coatings on Coater #1, the Gulamat EHN-142, in the production center, then the total enclosure capture system and catalytic incinerator do not need to be in use for this coating machine.  
(9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 5 of NSR permit dated 11/08/2002)
3. Each chamber of the catalytic incinerator for the production center shall maintain a minimum inlet temperature of 600 °F (clock hourly average) and a retention time of 0.34 seconds. Each chamber of the catalytic incinerator shall be equipped with devices to continuously measure temperature before and after the catalyst bed and the pressure drop across the catalyst bed. The maximum outlet temperature from each chamber of the catalytic incinerator shall not exceed 1200 °F (clock hourly average). The permittee shall maintain records of the manufacturer's recommendations for catalyst bed replacement and records of actual catalyst bed replacement.  
(9 VAC 5-80-110, 9 VAC 5-50-20 C, 9 VAC 5-50-260, and Condition 6 of NSR permit dated 11/08/2002)
4. Emission Controls - Volatile organic compound (VOC) emissions RGP 4 in the tech center shall be controlled by a total enclosure efficient capture system and a catalytic incinerator having at least 95% destruction efficiency. The printing press and catalytic incinerator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 7 of NSR permit dated 11/08/2002)

5. The catalytic incinerator for the tech center shall maintain a minimum inlet temperature of 550 °F (clock hourly average) and a retention time of 0.20 seconds. The catalytic incinerator shall be equipped with devices to continuously measure temperature before and after the catalyst bed and the pressure drop across the catalyst bed. The maximum outlet temperature from the catalyst bed shall not exceed 1200 °F (clock hourly average). The permittee shall maintain records of the manufacturer's recommendations for catalyst bed replacement and records of actual catalyst bed replacement.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260, and Condition 8 of NSR permit dated 11/08/2002)
6. Emission Controls - The total enclosure shall meet the following criteria:
  - a. Any natural draft openings shall be at least 4 equivalent opening diameters from each VOC emitting point;
  - b. The total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;
  - c. The average facial velocity of air through the natural draft openings shall be at least 200 feet per minute and the direction of flow shall be into the enclosure.
  - d. All access doors and windows shall be closed during routine operation of the presses or coaters.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 9 of NSR permit dated 11/08/2002)
7. Emission Controls - All the dampers in the duct work in the Production Center and Tech Center which could cause any fugitive VOCs to escape to the atmosphere shall be kept closed at all times except in case of a fire hazard.  
(9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 10 of NSR permit dated 11/08/2002)
8. Throughput - The combined throughput of materials to the three packaging rotogravure press units of RGP 1-3 from the usage of inks, coatings, thinners, and cleaners (combined) shall generate no more than 1267.0 tons of VOCs per year, calculated monthly as the sum of each consecutive 12- month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 14 of NSR permit dated 11/08/2002)

9. Throughput - The combined throughput of materials to the two coating machines (C 1-2 combined) shall generate no more than 270.5 tons of VOCs per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180 H, and Condition 15 of NSR permit dated 11/08/2002)
10. Throughput - The throughput of materials to RGP-4 in the tech center from the usage of inks, coatings, thinners, cleaners shall generate no more than 144.0 tons of VOCs per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 16 of NSR permit dated 11/08/2002)
11. Emission Limits - Emissions from the operation of the rotogravure presses RGP 1-3 (combined) shall not exceed the limits specified below:
- |                   |              |
|-------------------|--------------|
| Volatilic Organic |              |
| Compounds         | 63.4 tons/yr |
- These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers A.1 and A.8.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 22 of NSR permit dated 11/08/2002)
12. Emission Limits - Emissions from the operation of the two coating machines (C 1-2 combined) shall not exceed the limits specified below:
- |                   |              |
|-------------------|--------------|
| Volatilic Organic |              |
| Compounds         | 13.5 tons/yr |
- These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers A.1 and A.9.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 23 of NSR permit dated 11/08/2002)

13. Emission Limits - Emissions from the operation of the RGP-4 in the tech center shall not exceed the limits specified below:

Volatile Organic

Compounds	3.8 lbs/hr	7.2 tons/yr
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These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers A.4 and A.10.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 24-of NSR permit dated 11/08/2002)

14. Visible Emission Limits - Visible emissions from each of the catalytic incinerator stacks shall not exceed five (5) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 26 of NSR permit dated 11/08/2002)

15. Facility or Control Equipment Malfunction - Hazardous Air Pollutant Processes: The processes listed below shall, upon request of the Department, shut down immediately if its emissions increase in any amount because of a bypass, malfunction, shutdown or failure of the process or its associated air pollution control equipment. The processes shall not return to operation until it and the associated air pollution control equipment are able to operate in the proper manner.
- a. Gravure Presses 1-3 and/or Coaters 1-2 in Production Center,
  - b. Gravure Press in Technical Center.
- (9 VAC 5-80-110, 9 VAC 5-20-180 F 3, and Condition 34 of NSR permit dated 11/08/2002)



16. Maintenance/Operating Procedures - In the Production Center and Tech Center, the permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

(9 VAC 5-80-110, 9 VAC 5-50-20 E, and Condition 35 of NSR permit dated 11/08/2002

B. Monitoring

- i. Catalytic incinerator for Production Center: Each chamber of the catalytic incinerator (CI-1) shall be equipped with a device to continuously measure and record the inlet and outlet temperature to and from the catalyst bed. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times the catalytic incinerator is operating. Any 1-hour average inlet temperature below 600 EF shall be noted as an excursion. Any 1-hour average outlet temperatures above 1200 EF shall be noted as an excursion. All noted excursions shall require immediate maintenance on the catalytic incinerator to return the inlet and/or outlet temperature to within its normal range of readings. All 1-hour average temperature excursions shall be considered a permit violation.  
(9 VAC 5-80-110)
- ii. Catalytic incinerator for Technical Center: Each chamber of the catalytic incinerator (CI-2) shall be equipped with a device to continuously measure and record the inlet and outlet temperature to and from the catalyst bed. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times the catalytic incinerator is operating. Any 1-hour average inlet temperature below 550 EF shall be noted as an excursion. Any 1-hour average outlet temperature above 1200 EF shall be noted as an excursion. All noted temperature excursions shall require immediate maintenance on the catalytic incinerator to return the inlet and/or outlet temperature to within its normal range of readings. All 1-hour average temperature excursions shall be considered as a permit violation.  
(9 VAC 5-80-110)
- iii. Monitoring RGP 1-3 emissions: From a material balance of all products used by the three packaging rotogravure presses (RGP 1-3) and Material Safety Data Sheet (MSDS) for the products, the permittee shall calculate the monthly and annual throughput of VOC materials and the VOC emissions, except as required by Conditions III.B.3.a, to demonstrate compliance with Conditions III.A.8 & 11. If VOC content is given as a range, the maximum value shall be used. The annual emissions are the sum of each consecutive 12-month period.  
(9 VAC 5-80-110)

- (1) If any monthly monitoring (as required in Condition III.B.3) indicates that VOC emissions for RGP 1-3 (combined) are equal to or greater than 50% of the allowable limit in Condition III.A.11, the VOC content of each VOC material used shall be determined the next calendar quarter using Reference Method 24 or 24A (40 CFR 60, Appendix A), and such determined VOC content shall be used for the purpose of calculating throughput and emissions. VOC content testing shall be conducted by the permittee or the supplier may provide a manufacturer's certificate of VOC content of the batch as supplied for each formulation of material received after such emissions threshold has been achieved. Each VOC material shipment received shall be clearly identified by a product formulation number which may be correlated to Method 24 or 24A test results. The most recent test results of VOC content for each formulation shall be used in emission calculations. Quarterly testing may be discontinued after actual VOC emissions are below 50% of the allowable limit in Condition III.A.11 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test or manufacturer's certificate for each formulation may be used in lieu of the MSDS value in throughput and emission calculations.  
(9 VAC 5-80-110)
- iv. Monitoring C 1 & 2: From a material balance of all products used by the two coaters (C 1 & 2) and Material Safety Data Sheet (MSDS) for the products, the permittee shall calculate the monthly and annual throughput of VOC materials and the VOC emissions, except as required by Conditions III.B.4.a, to demonstrate compliance with Conditions III.A.12. If VOC content is given as a range, the maximum value shall be used. The annual emissions are the sum of each consecutive 12-month period.  
(9 VAC 5-80-110)

- (1) If any monthly monitoring (as required in Condition III.B.4) indicates that VOC emissions for C 1 & 2 are equal to or greater than 50% of the allowable limit in Condition III.A.12, the VOC content of each VOC material used shall be determined the next calendar quarter using Reference Method 24 or 24A (40 CFR 60, Appendix A) and such determined VOC content shall be used for the purpose of calculating throughput and emissions. VOC content testing shall be conducted by the permittee or the supplier may provide a manufacturer's certificate of VOC content of the batch as supplied for each formulation of material received after such emissions threshold has been achieved. Each VOC material shipment received shall be clearly identified by a product formulation number which may be correlated to Method 24 or 24A test results. The most recent test results of VOC content for each formulation shall be used in the emission calculations. Quarterly testing may be discontinued after actual coating VOC emissions are below 50% of the allowable limit in Condition III.A.12 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test or manufacturer's certificate for each formulation may be used in lieu of the MSDS value in throughput and emission calculations.  
(9 VAC 5-80-110)
- v. Monitoring RGP 4: From a material balance of all products used by the rotogravure (RGP 4) in the Technical Center and Material Safety Data Sheet (MSDS) for the products, the permittee shall calculate the monthly and annual throughput of VOC materials and the VOC emissions, except as required by Conditions III.B.5.a, to demonstrate compliance with Conditions III.A.13. If VOC content is given as a range, the maximum value shall be used. The annual emissions are the sum of each consecutive 12-month period.  
(9 VAC 5-80-110)
- (1) If any monthly monitoring (as required in Condition III.B.5) indicates that VOC emissions for RGP 4 are equal to or greater than 50% of the allowable limit in Condition III.A.13, the VOC content of each VOC material used shall be determined the next calendar quarter using Reference Method 24 or 24A (40 CFR 60, Appendix A) and such determined VOC content shall be used for the purpose of calculating throughput and emissions. VOC content testing shall be conducted by the permittee or the supplier may provide a manufacturer's certificate of VOC content of the batch as supplied for each formulation of material received after such emissions threshold has been achieved. Each VOC material shipment received shall be clearly identified by a product formulation number which may be correlated to Method 24 or 24A test results. The most recent test results of VOC content for each formulation shall be used in the emission calculations. Quarterly testing may be discontinued after actual coating VOC emissions are below 50% of the allowable limit in Condition III.A.13 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test or manufacturer's certificate for each formulation may be used in lieu of the MSDS value in throughput and emission calculations.  
(9 VAC 5-80-110)

- vi. Monitoring Total Enclosures: On a monthly basis, the permittee shall inspect each permanent total enclosure for the four packaging rotogravure presses (RGP 1-4) and two coaters (C 1 & 2) and note any changes that have been made since the last permanent total enclosure certification was conducted.  
(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

- (1) The yearly throughput of materials and generated VOCs and HAPS (from the inks, coatings, thinners, cleaners) for the three packaging rotogravure presses (RGP 1-3) combined, calculated monthly as the sum of each consecutive 12-month period,
- (2) The yearly throughput of materials and generated VOCs and HAPS for the two coating machines (C 1 & 2) combined, calculated monthly as the sum of each consecutive 12-month period,
- (3) The yearly throughput of materials and generated VOCs and HAPS (from the inks, coatings, thinners, cleaners) for the 13.5 inch packaging rotogravure press (RGP 4) in the tech center, calculated monthly as the sum of each consecutive 12-month period. .Material Safety Data Sheet for all materials used on the rotogravure presses (RGP 1-4) and coaters (C 1 & 2) that display the VOC and HAPS % by weight. All required Method 24/24A test results, or manufacturer's certificates of VOC and batch content as supplied.
- (4) Any requests by DEQ to shut down portions of the facility and the permittee's actions on such occurrences.
- (5) Maintenance schedule, spare parts list, maintenance records of scheduled and unscheduled maintenance, and training records.
- (6) Records of inlet and outlet hourly temperatures for the catalytic incinerators.
- (7) Results from the monthly permanent total enclosure inspections.
- (8) The results of any conducted performance tests.

These records shall be kept at the facility, made available for inspection by the DEQ, and shall be current for the most recent five years.

(9 VAC 5-80-110, 9 VAC 5-50-50, and Condition 29 of NSR permit dated 11/08/2002)

D. Testing

- i. Testing - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 F, 9 VAC 5-80-110, and Condition 13 of NSR permit dated 11/08/2002)
- ii. Stack Test - Initial performance tests shall be conducted on the Production Center catalytic incinerator and capture system for RGP-1 to determine compliance with the control efficiency requirements for VOCs contained in Conditions III.A.1 and III.A.6. If no initial performance tests under MACT operating scenario # 2 have been performed while the new (JOSH) Gravure Press # 1 is operating (Condition VII.D.1), the tests shall be performed and demonstrate compliance within 60 days after achieving the maximum production rate on the new (JOSH) Gravure Press # 1 but in no event later than 180 days after start-up of the new (JOSH) Gravure Press # 1. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Tidewater Regional Office.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 28 of NSR permit dated 11/08/2002)
- iii. Stack Test - If no testing has been accomplished under Condition VII.D.1, a performance test to demonstrate compliance with Condition III.A.4 shall be conducted on the permanent total enclosure and catalytic incinerator for the rotogravure press in the Technical Center within 90 days of the ending month upon the first time that the consecutive 12-month total VOC throughput to the packaging rotogravure press exceeds 100 tons. Only one performance test, based on this throughput trigger, is required before this permit is renewed if there is more than one occasion of the 12-month total VOC throughput to the packaging rotogravure press exceeding 100 tons.  
(9 VAC 5-80-110)
- iv. Testing - A performance test to demonstrate compliance with Condition III.A.1 and/or A.4 shall be conducted within 90 days on any permanent total enclosures that have been modified to affect their status since the last permanent total enclosure certification was conducted.  
(9 VAC 5-80-110)

- v. Testing - If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
VOC	EPA Methods 18, 25, 25a
Permanent Total Enclosure	EPA Method 204
VOC Content	EPA Methods 24, 24a
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

E. Reporting

- i. Submit all proposed test protocols for the permanent total enclosures and performance test for the incinerators to DEQ at least 60 days prior to the proposed testing date.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 28 of NSR permit dated 11/08/2002)
- ii. Submit test results for permanent total enclosures and performance test for the incinerators to DEQ at least 60 days after testing has been completed.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, and Condition 28 of NSR permit dated 11/08/2002)
- iii. The permittee shall furnish written notification of:
- The actual date on which construction of the new RGP-1 commenced, within 30 days after such date.
  - The anticipated start-up date of the new RGP-1, postmarked not more than 60 days nor less than 30 days prior to such date.
  - The actual start-up date of the new RGP-1, within 15 days after such date.
  - The anticipated date of performance tests of the new Gravure Press # 1 postmarked at least 30 days prior to such date.
  - A copy of a and c for RGP-1 shall be sent to:  
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III  
ATTN: Subpart KK Coordinator  
1650 Arch Street  
Philadelphia, PA 19103-2029  
(9 VAC 5-50-50 and 40 CFR 63, Subpart A § 63.9(a)(4)(ii) and § 63.9(b)(4)(iii and v), and Condition 30 of NSR permit dated 11/08/2002)



- iv. All reports will be sent to:  
DEQ/TRO  
5636 Southern Blvd.  
Virginia Beach, VA 23462  
(9 VAC 5-80-110)

#### **IV. Lithographic Center (LP 1-3), NSR permit of 11/08/2002**

##### **A. Limitations**

- i. Emission Controls - Volatile organic compound (VOC) emissions from the three non-heat set sheetfed offset lithographic presses (LP 1-3) shall be controlled by the use of conventional inks (42% or less VOC by weight), UV inks, water based coatings (10% or less VOC by weight), and isopropyl alcohol fountain solution at 10% or less VOC by weight. A change in inks, coatings, or fountain solution may require a permit to modify and operate. The printing presses shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 11 of NSR dated 11/08/2002)
- ii. Throughput - The throughput of conventional offset inks for the three sheetfed offset lithographic presses (LP 1-3) shall not exceed 1474.2 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 17 of NSR dated 11/08/2002)
- iii. Throughput - The throughput of press/roller/blanket wash for the three sheetfed offset lithographic presses (LP 1-3) shall not exceed 30.9 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 18 of NSR dated 11/08/2002)
- iv. Throughput - The throughput of UV washes for LP-1 and LP-3 shall not exceed 8.8 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 19 of NSR dated 11/08/2002)
- v. Throughput - The throughput of isopropyl alcohol added to the fountain solution for the three sheetfed offset lithographic presses (LP 1-3) shall not exceed 50.5 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 20 of NSR dated 11/08/2002)
- vi. Throughput - The throughput of water based (acrylic) coating for the three sheetfed offset lithographic presses (LP 1-3) shall not exceed 839.7 tons per year, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 21 of NSR dated 11/08/2002)

- vii. Emission Limits - The products listed in Conditions IV.A 2 through 6 can be used along with UV inks in any combination during the year such that emissions from the operation of the three sheetfed offset lithographic presses (LP 1-3 combined) shall not exceed the limits specified below:

Volatile Organic

Compounds

109.0 ton/yr

(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 25 of NSR dated 11/08/2002)

- viii. Emission Controls - In the Litho Center, the permittee shall take all reasonable precautions with press operations and the handling, transportation, and storage of the printing input materials at the facility in order to minimize the duration and frequency of excess emissions.

(9 VAC 5-80-110, 9 VAC 5-80-10 H, and Condition 12 of NSR dated 11/08/2002)

#### B. Monitoring

- i. From a material balance of all products used by the three lithographic presses (LP 1-3) and Material Safety Data Sheets (MSDS) for the products, the permittee shall calculate the monthly and annual throughput of VOC emissions, except as required by Condition IV.B.2 to demonstrate compliance with Condition IV.A.7. If VOC contents are given as a range, the maximum value shall be used. The annual emissions are the sum of each consecutive 12-month period.

(9 VAC 5-80-110)

- ii. If any monthly monitoring (as required in Condition IV.B.1) indicates that VOC emissions are equal to or greater than 50% of the allowable limit in Condition IV.7, the VOC content of each VOC material used shall be determined the next calendar quarter using Reference Method 24 or 24A (40 CFR 60, Appendix A) and such determined VOC content shall be used for the purpose of calculating throughput and emissions. VOC content testing shall be conducted by the permittee or the supplier may provide a manufacturer's certificate of VOC content of the batch as supplied for each formulation of material received after such emissions threshold has been achieved. Each VOC material shipment received shall be clearly identified by a product formulation number which may be correlated to Method 24 or 24A test results. The most recent test results of VOC content for each formulation shall be used in the emission calculations. Quarterly testing may be discontinued after actual coating VOC emissions are below 50% of the allowable limit in Condition IV.A.7 for three consecutive months. If quarterly testing is discontinued, the VOC content determined in the latest test or manufacturer's certificate for each formulation may be used in lieu of the MSDS value in throughput and emission calculations.

(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

(1) The yearly throughput (in tons) of the following items for the Litho Center:

- conventional offset inks;
- press/roller/blanket wash;
- UV wash;
- isopropyl alcohol;
- water based (acrylic) coatings;

yearly is calculated monthly as the sum of each consecutive 12-month period.

(2) Material Safety Data Sheets for materials used by the presses in the Litho Center that display the VOC and HAPS % by weight.. All required Method 24/24A test results or manufacturer's certificates of VOC batch content as supplied.

(3) Yearly VOC and HAPS emissions shall be calculated monthly for the conventional inks, press/roller/blanket wash, UV wash, isopropyl alcohol, and water based (acrylic) coatings used by the three litho presses (LP 1-3 combined), calculated monthly as the sum of each consecutive 12-month period to show compliance with Condition IV.A.7.

These records shall be kept at the facility, made available for inspection by DEQ, and shall be current for the most recent five years.

(9 VAC 5-80-110, 9 VAC 5-50-50, and Condition 29 of NSR permit dated 11/08/2002)

D. Testing

If testing to demonstrate compliance is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method
VOC Content	EPA Methods 24/ 24a

(9 VAC 5-80-110)

**V. Facility Wide, NSR permit of 11/08/2002**

**A. Limitations**

The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-80-110, 9 VAC 5-20-180 I, and Condition 37 of NSR permit dated 11/08/2002)

**B. Monitoring/Recordkeeping**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

- i. Requests by DEQ to reduce level of operations or shut down the facility to avoid violating any primary ambient air quality standard and the permittee's actions.
- ii. Notifications of the permittee's intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour.

These records shall be kept at the facility, made available for inspection by DEQ, and shall be current for the most recent five years.

(9 VAC 5-80-110)

C. Reporting

- i. The permittee shall furnish notification to the Director, Tidewater Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

- (1) Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
- (2) The expected length of time that the air pollution control equipment will be out of service;
- (3) The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;
- (4) Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-110, 9 VAC 5-20-180 B, and Condition 36 of NSR permit date 11/08/2002)

- ii. All reports will be sent to:  
DEQ/TRO  
5636 Southern Blvd.  
Virginia Beach, VA 23462  
(9 VAC 5-80-110)

All other parts of the original T-5 remain the same except Section XI, General Requirements. Any changes made to the DEQ boilerplate since the original Federal Operating permit was issued on July 29, 2002, were incorporated into this permit.

Streamlined requirements for the NSR permit issued on 11/08/2002:

Condition 3, removal of old RGP-1 and LP-1 has been accomplished, such requirements are not in the T-5 permit.

Condition 30, the notifications for LP-1 have been accomplished and such requirements are not in the T-5 permit.

Condition 1 was included in Title V boilerplate Condition XI.J

Condition 31 was included in Title V boilerplate Condition XI.V

Condition 38 was included in Title V boilerplate Condition XI.F

Condition 39 was included in Title V boilerplate Condition XI.T

Condition 40 was included in Title V boilerplate Condition XI.L.1

Condition 41 was included in Title V boilerplate Condition XI.S

## PUBLIC PARTICIPATION

Public notice date: August 17, 2003  
Draft to EPA date: August 14, 2002  
Public comments: None received  
EPA comments: None received  
Proposed permit to EPA date: September 17, 2003  
EPA comments: None received